Document Classified

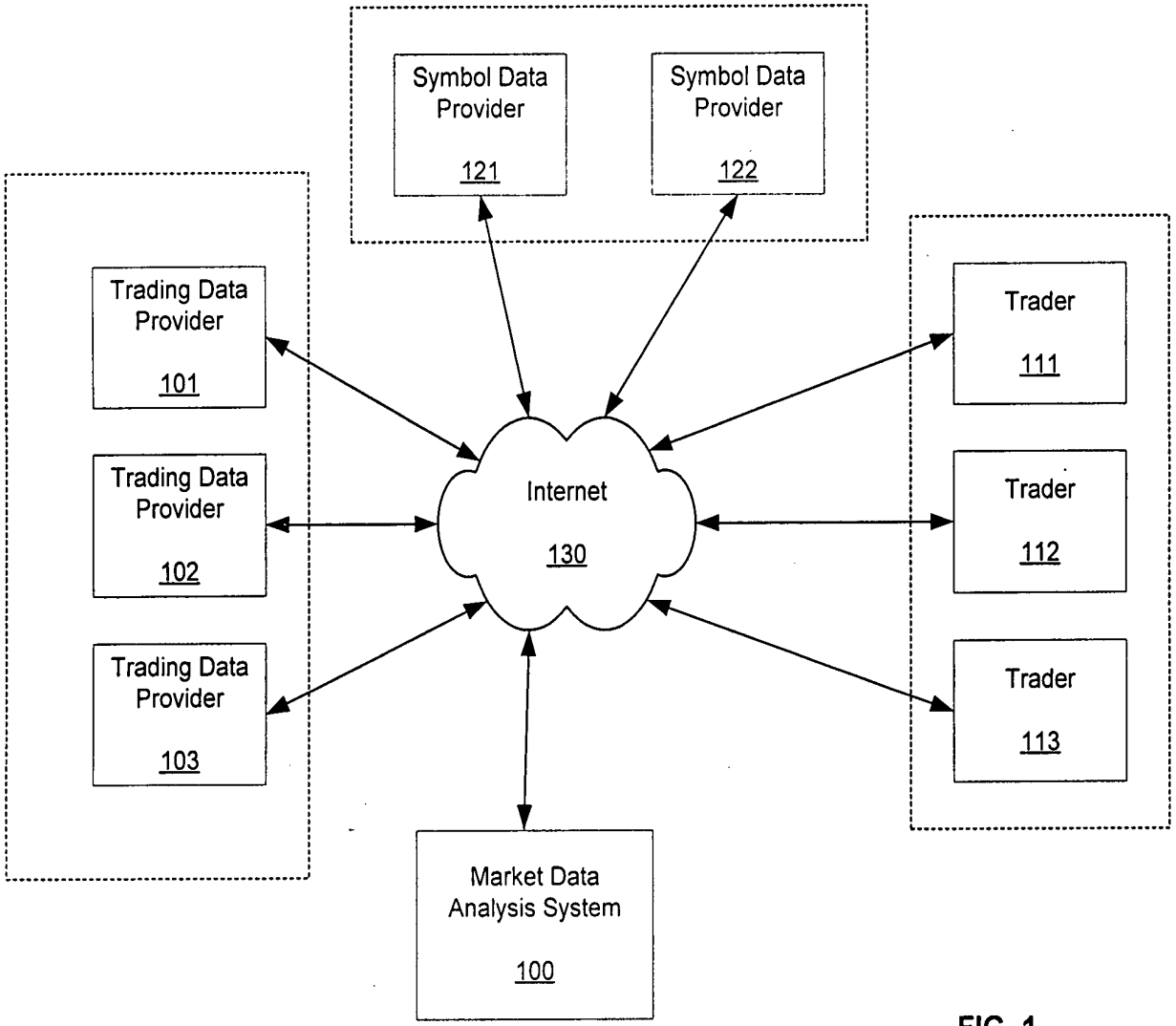


FIG. 1

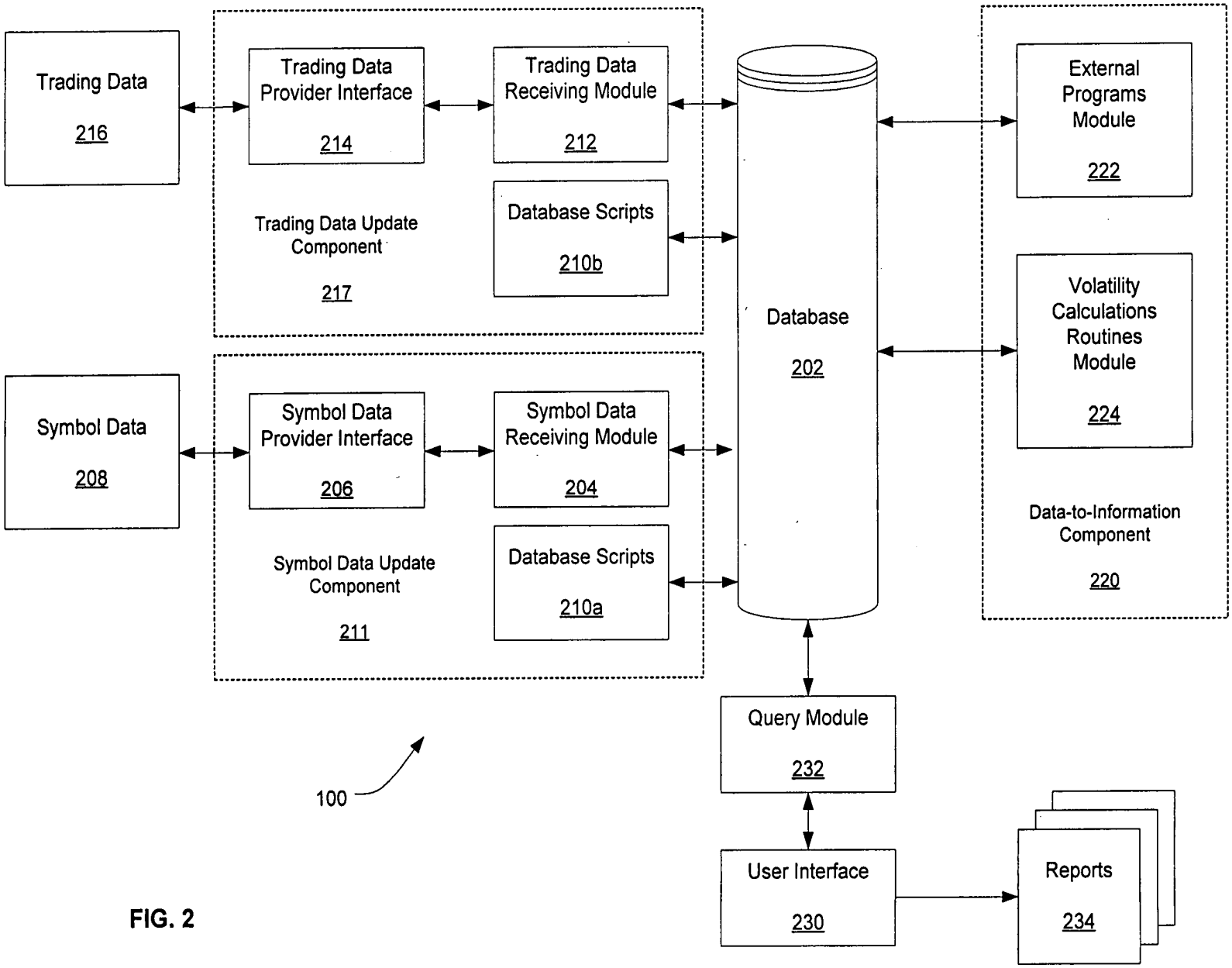

Trading Data
216
Trading Data Provider Interface
214
Trading Data Receiving Module
212
Trading Data Update Component
217
Database Scripts
210b
Database
202
External Programs Module
222
Volatility Calculations Routines Module
224
Data-to-Information Component
220
Symbol Data
208
Symbol Data Provider Interface
206
Symbol Data Receiving Module
204
Symbol Data Update Component
211
Database Scripts
210a
Query Module
232
User Interface
230
Reports
234
100

FIG. 2

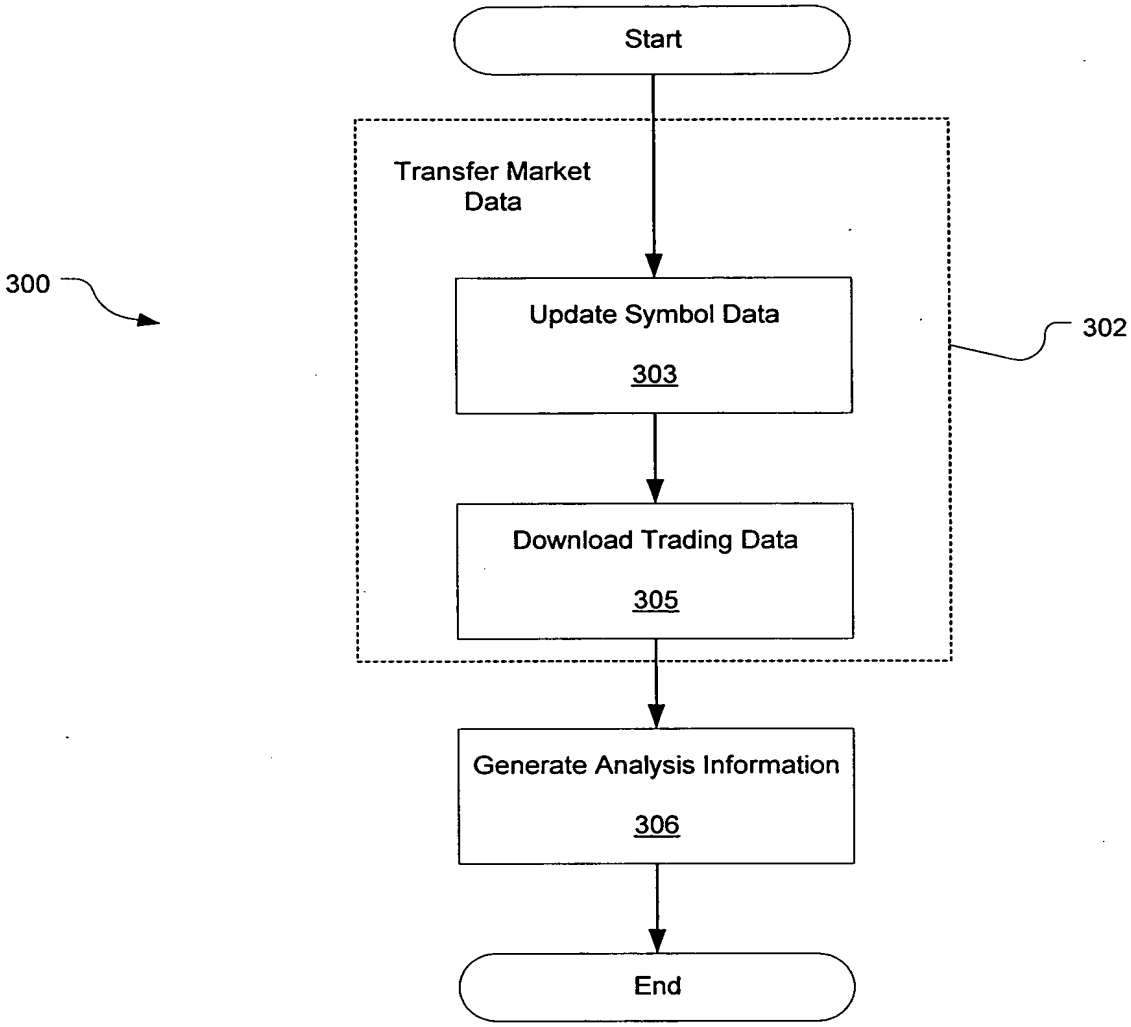
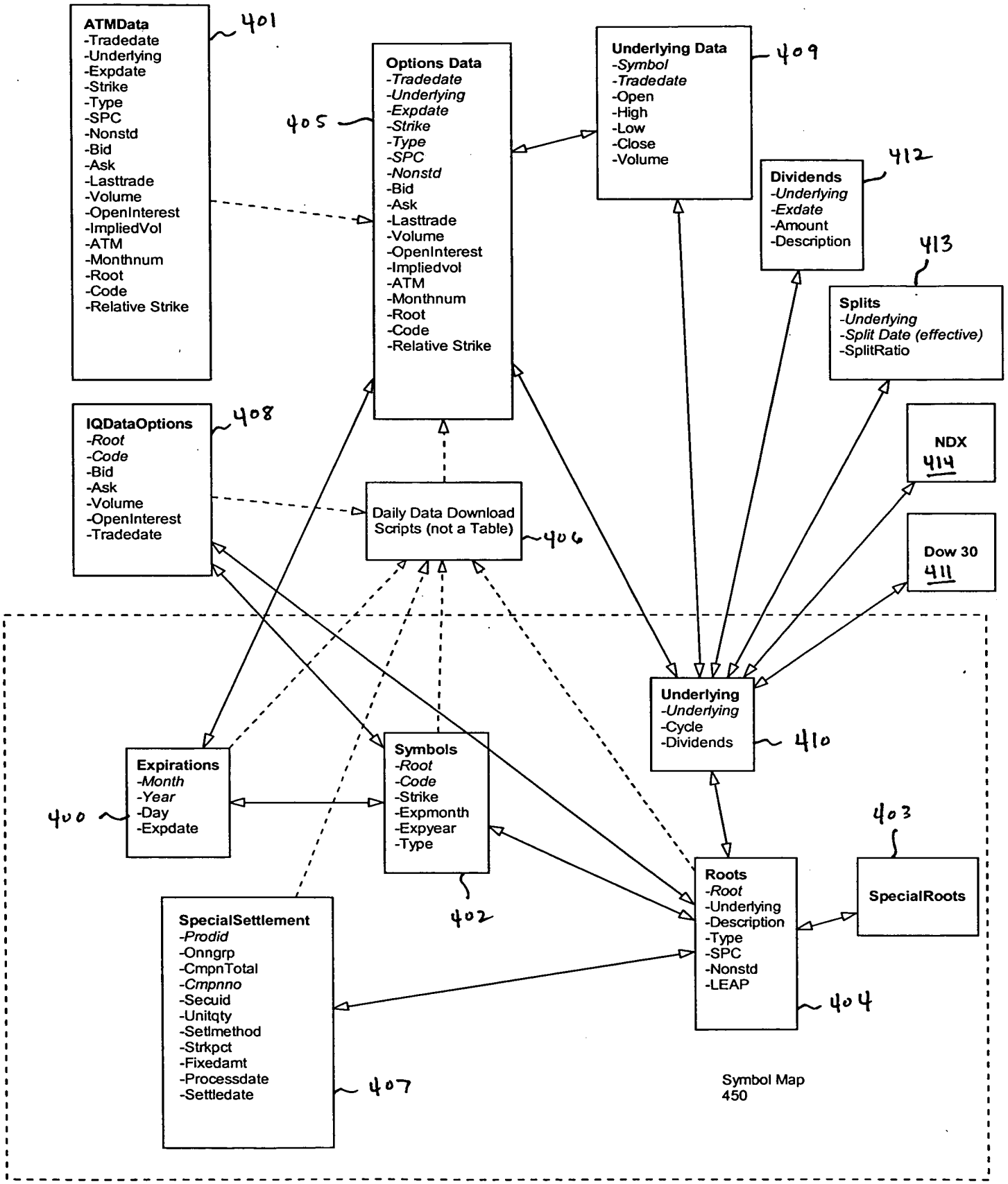

Start
Transfer Market Data
300
Update Symbol Data
303
302
Download Trading Data
305
Generate Analysis Information
306
End

FIG. 3

Figure 4


ATMData
-Tradedate
-Underlying
-Expdate
-Strike
-Type
-SPC
-Nonstd
-Bid
-Ask
-Lasttrade
-Volume
-OpenInterest
-ImpliedVol
-ATM
-Monthnum
-Root
-Code
-Relative Strike
401
Options Data
-Tradedate
-Underlying
-Expdate
-Strike
-Type
-SPC
-Nonstd
-Bid
-Ask
-Lasttrade
-Volume
-OpenInterest
-Impliedvol
-ATM
-Monthnum
-Root
-Code
-Relative Strike
405
Underlying Data
-Symbol
-Tradedate
-Open
-High
-Low
-Close
-Volume
409
Dividends
-Underlying
-Exdate
-Amount
-Description
412
Splits
-Underlying
-Split Date (effective)
-SplitRatio
413
NDX
414
Dow 30
411
IQDataOptions
-Root
-Code
-Bid
-Ask
-Volume
-OpenInterest
-Tradedate
408
Daily Data Download Scripts (not a Table)
406
Underlying
-Underlying
-Cycle
-Dividends
410
Expirations
-Month
-Year
-Day
-Expdate
400
Symbols
-Root
-Code
-Strike
-Expmonth
-Expyear
-Type
402
Roots
-Root
-Underlying
-Description
-Type
-SPC
-Nonstd
-LEAP
404
SpecialRoots
403
SpecialSettlement
-Prodid
-Onngrp
-CmpnTotal
-Cmpnno
-Secuid
-Unitqty
-Setlmethod
-Strkpct
-Fixedamt
-Processdate
-Settledate
407
Symbol Map
450

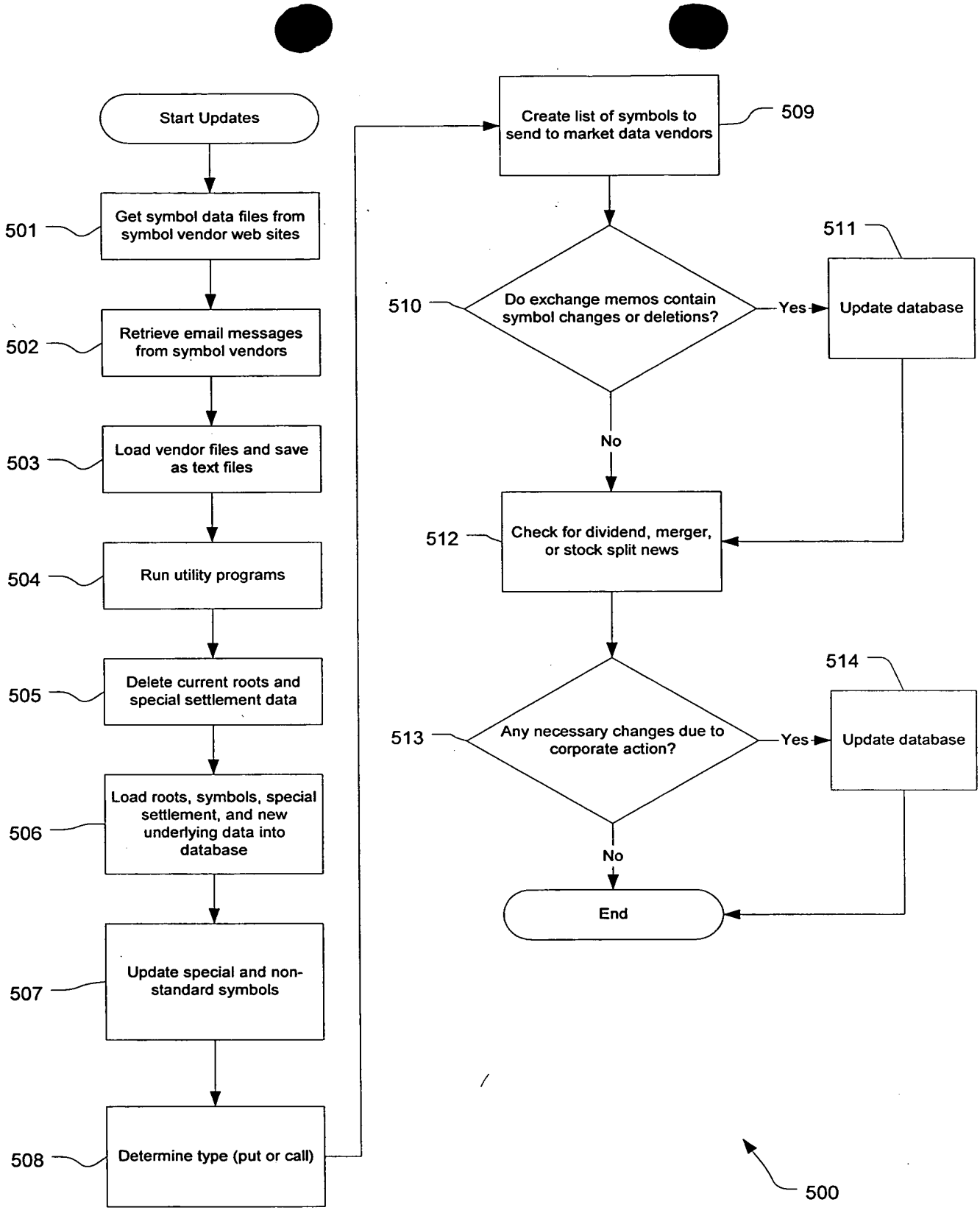

Start Updates
501
Get symbol data files from symbol vendor web sites
502
Retrieve email messages from symbol vendors
503
Load vendor files and save as text files
504
Run utility programs
505
Delete current roots and special settlement data
506
Load roots, symbols, special settlement, and new underlying data into database
507
Update special and non-standard symbols
508
Determine type (put or call)
Create list of symbols to send to market data vendors
509
510
Do exchange memos contain symbol changes or deletions?
Yes
511
Update database
No
512
Check for dividend, merger, or stock split news
513
Any necessary changes due to corporate action?
Yes
514
Update database
No
End
500

FIG. 5

Figure 6

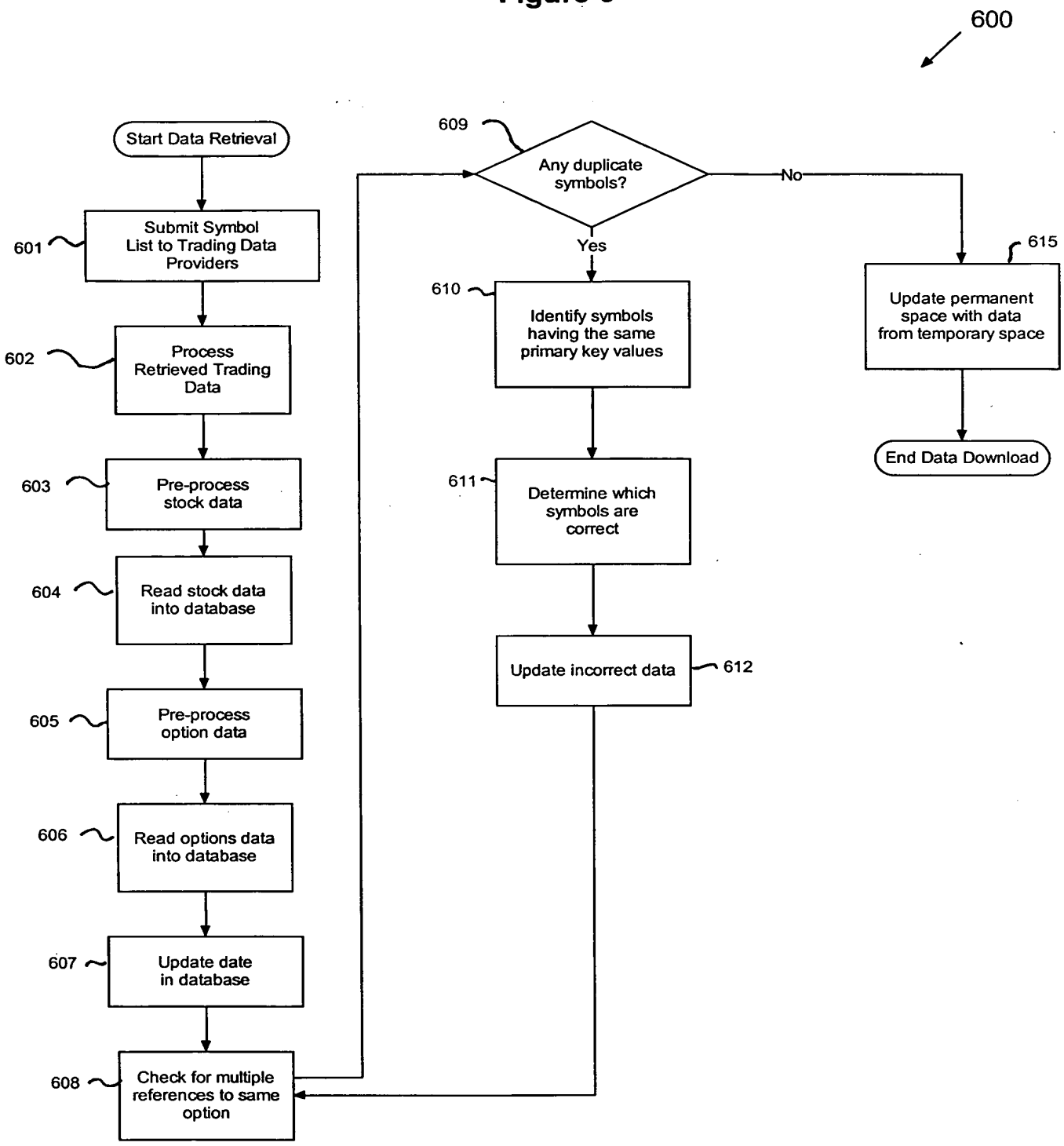
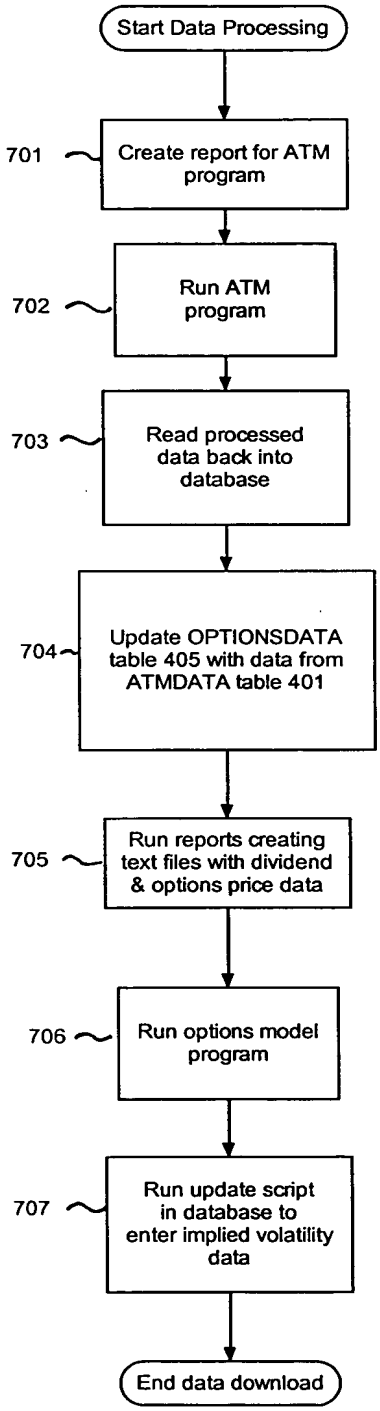

600
Start Data Retrieval
601
Submit Symbol List to Trading Data Providers
602
Process Retrieved Trading Data
603
Pre-process stock data
604
Read stock data into database
605
Pre-process option data
606
Read options data into database
607
Update date in database
608
Check for multiple references to same option
609
Any duplicate symbols?
Yes
No
610
Identify symbols having the same primary key values
611
Determine which symbols are correct
612
Update incorrect data
615
Update permanent space with data from temporary space
End Data Download

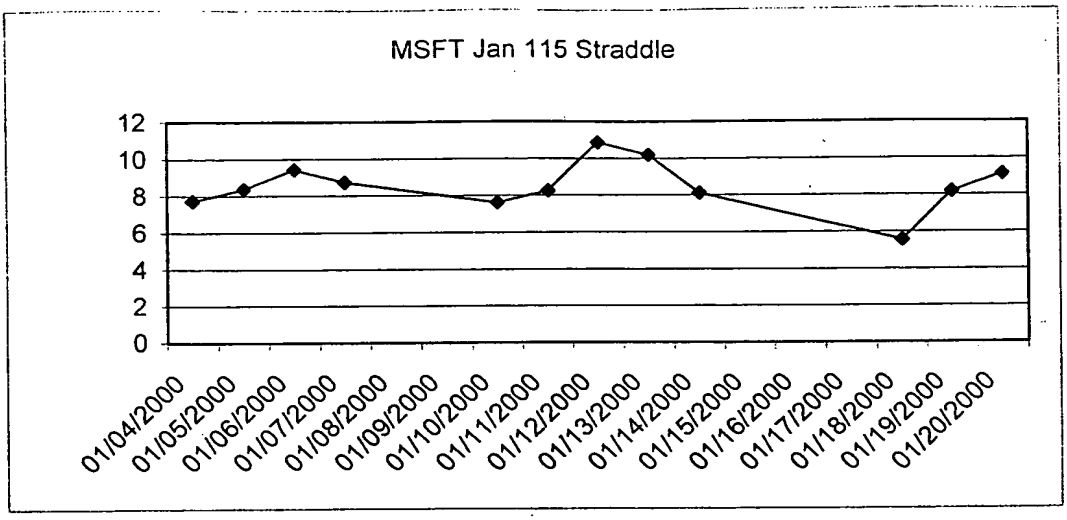
FIG. 7


Start Data Processing
701
Create report for ATM program
702
Run ATM program
703
Read processed data back into database
704
Update OPTIONSDATA table 405 with data from ATMDATA table 401
705
Run reports creating text files with dividend & options price data
706
Run options model program
707
Run update script in database to enter implied volatility data
End data download
700

DECODED EXPOSED

FIG. 8

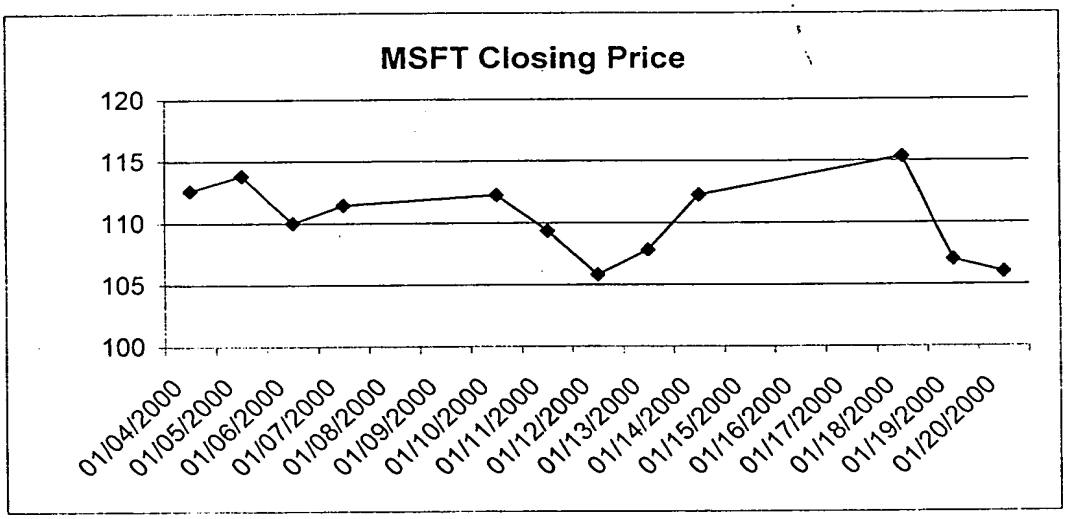
TRADEDATE	UNDER	EXPDATE	STRIKE	T	SPC	N	BID	ASK	VOLUME	IMPLIEDVOL	RELATIVESTRIKE	MONTHNUM	ROO	CO
19-MAY-00	MSFT	16-JUN-00	45	C	45	N	0	.125	0	0		-1	VSO	FI
19-MAY-00	MSFT	16-JUN-00	45	P	45	N	15.5	16	0	4.35		-1	VSO	RI
19-MAY-00	MSFT	19-MAY-00	50	C	100	N	14.625	15.375	37	0	-15	1	MSQ	EJ
19-MAY-00	MSFT	19-MAY-00	50	P	100	N	0	.25	0	0	-15	1	MSQ	QJ
19-MAY-00	MSFT	19-MAY-00	55	C	100	N	9.75	10.125	15	0	-10	1	MSQ	EK
19-MAY-00	MSFT	19-MAY-00	55	P	100	N	0	.25	13	0	-10	1	MSQ	QK
19-MAY-00	MSFT	19-MAY-00	60	P	100	N	0	.1875	76	0	-5	1	MSQ	QL
19-MAY-00	MSFT	19-MAY-00	60	C	100	N	4.75	5.125	677	0	-5	1	MSQ	EL
19-MAY-00	MSFT	19-MAY-00	65	C	100	N	.0625	.25	9057	0	0	1	MSQ	EM
19-MAY-00	MSFT	19-MAY-00	65	P	100	N	.0625	.1875	9075	0	0	1	MSQ	QM
19-MAY-00	MSFT	19-MAY-00	70	C	100	N	0	.0625	2072	0	5	1	MSQ	EN
19-MAY-00	MSFT	19-MAY-00	70	P	100	N	4.875	5.25	3000	0	5	1	MSQ	QN
19-MAY-00	MSFT	19-MAY-00	75	C	100	N	0	.25	1030	0	10	1	MSQ	EO
19-MAY-00	MSFT	19-MAY-00	75	P	100	N	9.875	10.25	1353	0	10	1	MSQ	QO
19-MAY-00	MSFT	16-JUN-00	50	C	100	N	14.875	15.625	107	0	-15	2	MSQ	FJ
19-MAY-00	MSFT	16-JUN-00	50	P	100	N	.1875	.375	136	.64	-15	2	MSQ	RJ
19-MAY-00	MSFT	16-JUN-00	55	C	100	N	10.25	10.75	70	.4	-10	2	MSQ	FK
19-MAY-00	MSFT	16-JUN-00	55	P	100	N	.375	.5625	187	.52	-10	2	MSQ	RK
19-MAY-00	MSFT	16-JUN-00	60	C	100	N	6.125	6.375	786	.4	-5	2	MSQ	FL
19-MAY-00	MSFT	16-JUN-00	60	P	100	N	.9375	1.125	1235	.43	-5	2	MSQ	RL
19-MAY-00	MSFT	16-JUN-00	65	C	100	N	2.8125	3	5104	.38	0	2	MSQ	FM
19-MAY-00	MSFT	16-JUN-00	65	P	100	N	2.5	2.75	1440	.39	0	2	MSQ	RM
19-MAY-00	MSFT	16-JUN-00	70	C	100	N	1.0625	1.25	5366	.39	5	2	MSQ	FN
19-MAY-00	MSFT	16-JUN-00	70	P	100	N	5.75	6.125	1131	.41	5	2	MSQ	RN
19-MAY-00	MSFT	16-JUN-00	75	C	100	N	.375	.5	980	.41	10	2	MSQ	FO
19-MAY-00	MSFT	16-JUN-00	75	P	100	N	10	10.375	422	.42	10	2	MSQ	RO



↖ 1000

FIG. 10

(Prior Art)



↖ 900

FIG. 9

(Prior Art)

1100

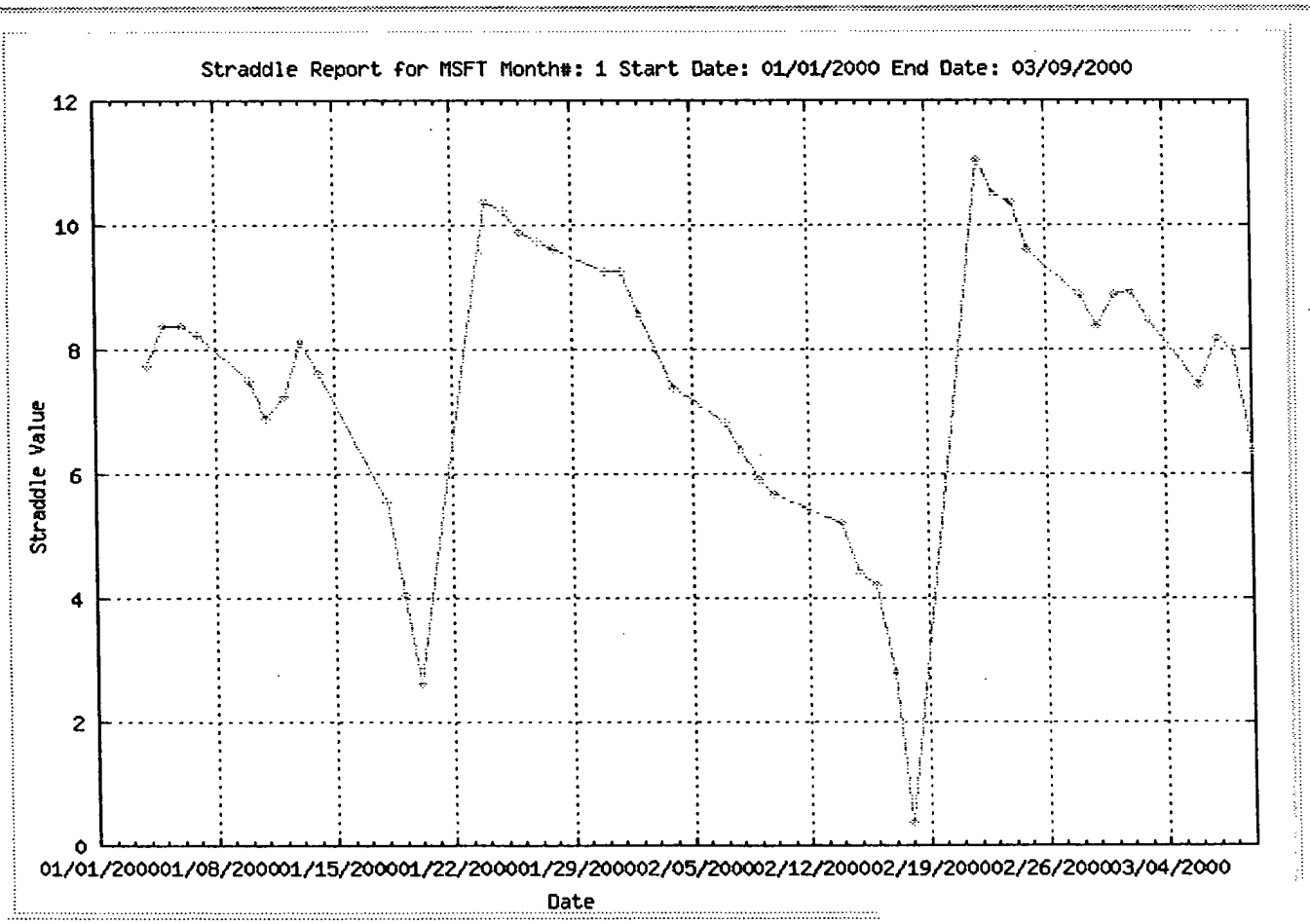

Straddle Report for MSFT Month#: 1 Start Date: 01/01/2000 End Date: 03/09/2000
Straddle Value
0
2
4
6
8
10
12
01/01/200001/08/200001/15/200001/22/200001/29/200002/05/200002/12/200002/19/200002/26/200003/04/2000
Date

FIG. 11

1200

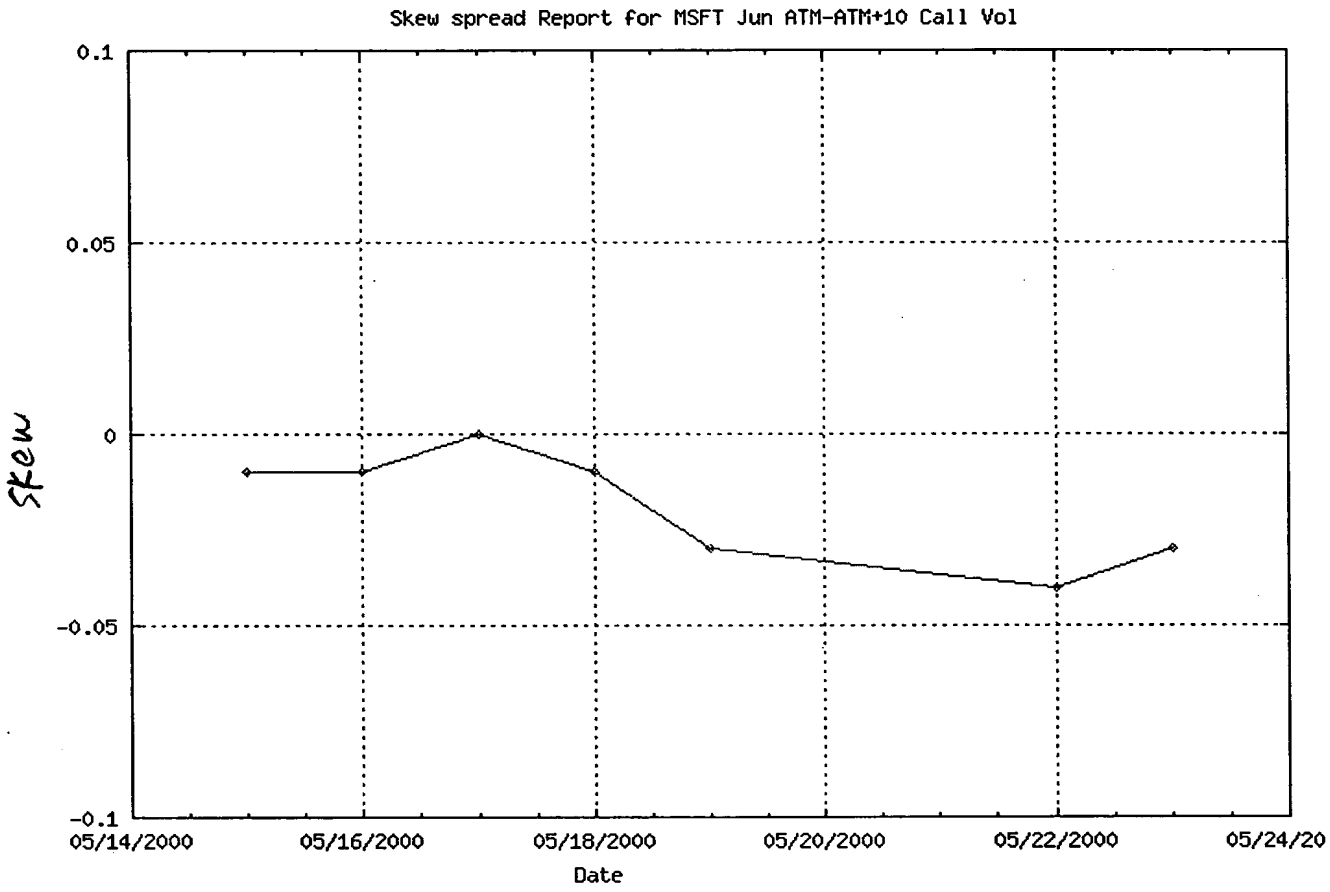

Skew spread Report for MSFT Jun ATM-ATM+10 Call Vol
0.1
0.05
0
-0.05
-0.1
Skew
05/14/2000
05/16/2000
05/18/2000
05/20/2000
05/22/2000
05/24/20
Date

FIG. 12

1300

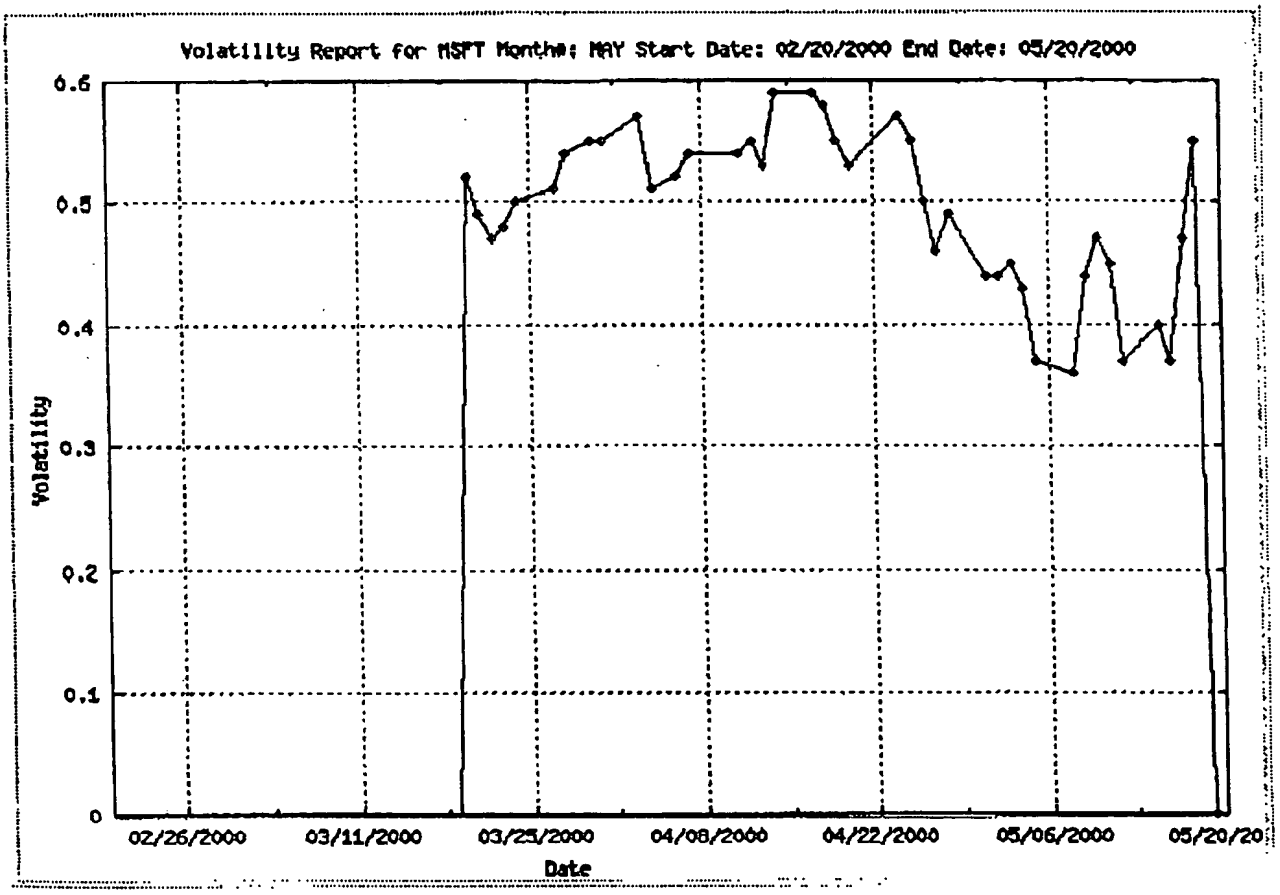

Volatility Report for MSFT Month#: MAY Start Date: 02/20/2000 End Date: 05/20/2000
0.6
0.5
0.4
0.3
0.2
0.1
0
Volatility
02/26/2000
03/11/2000
03/25/2000
04/08/2000
04/22/2000
05/06/2000
05/20/20
Date

FIG. 13

1400

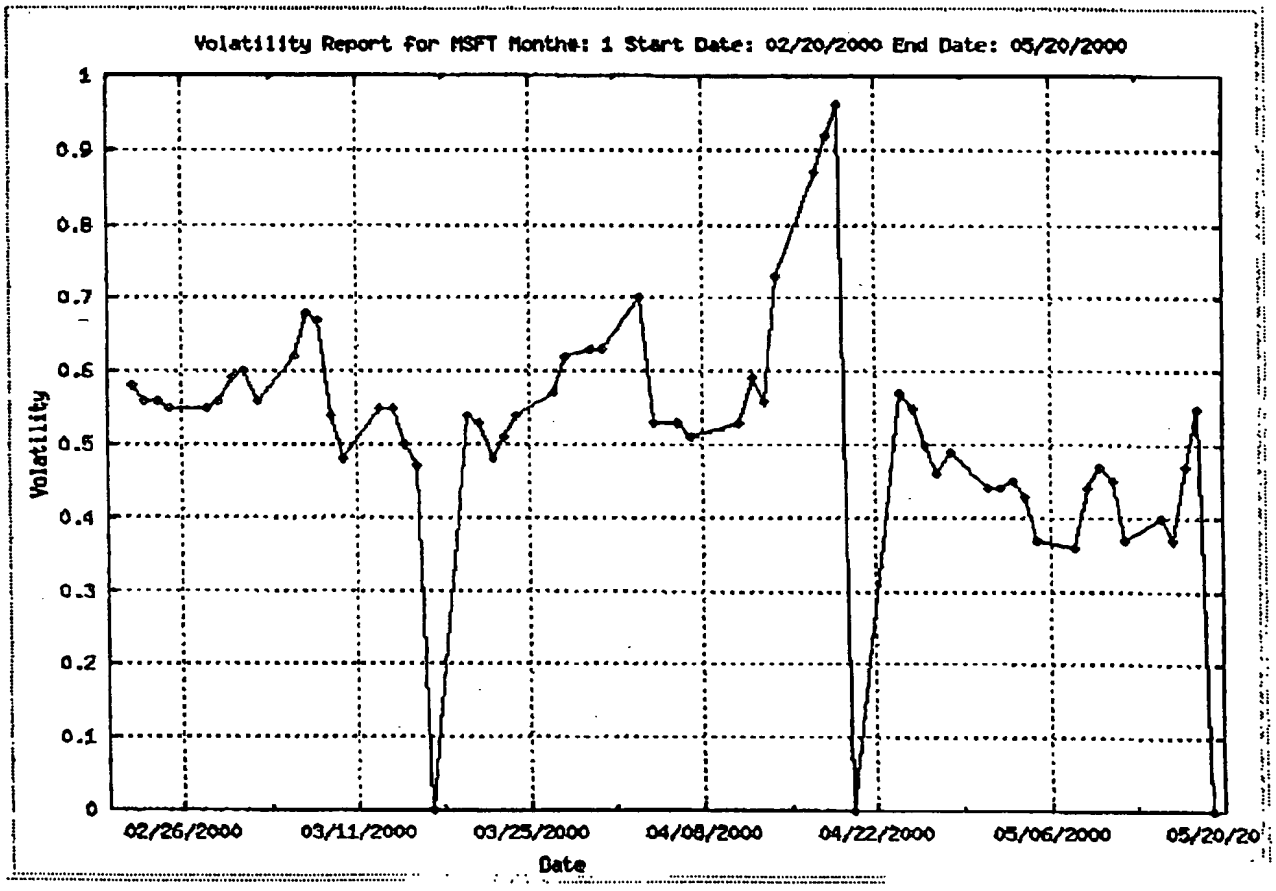

Volatility Report for MSFT Months: 1 Start Date: 02/20/2000 End Date: 05/20/2000
Volatility
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
02/26/2000
03/11/2000
03/25/2000
04/08/2000
04/22/2000
05/06/2000
05/20/20
Date

FIG. 14

1500

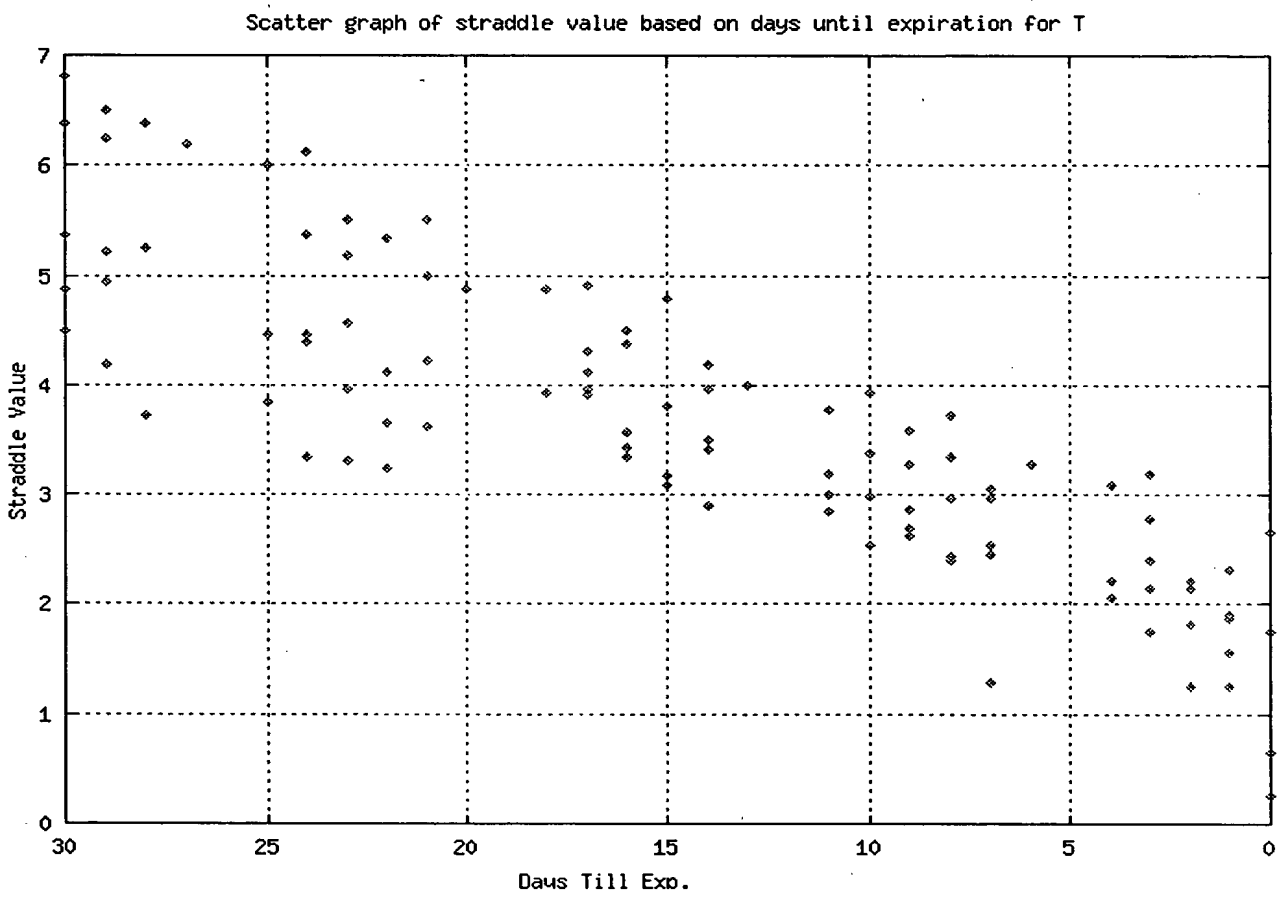

Scatter graph of straddle value based on days until expiration for T
Straddle Value
Daus Till Exp.
0
1
2
3
4
5
6
7
30
25
20
15
10
5
0

FIG. 15

1600

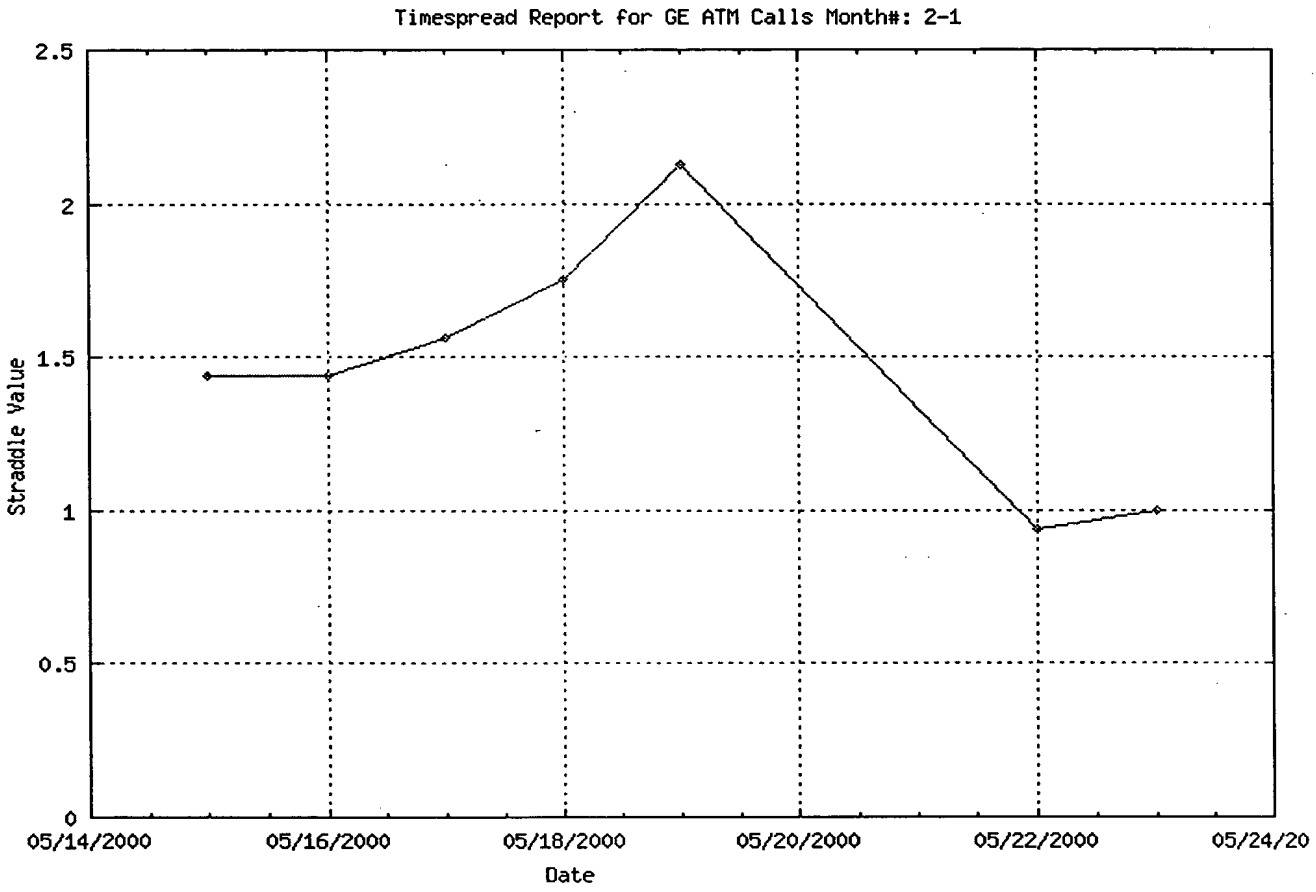

Timespread Report for GE ATM Calls Month#: 2-1
Straddle Value
2.5
2
1.5
1
0.5
0
05/14/2000
05/16/2000
05/18/2000
05/20/2000
05/22/2000
05/24/20
Date

FIG. 16